

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

JAN 22 1996

In the Matter of)

Advanced Television Systems and)
Their Impact Upon the Existing)
Television Broadcast Service)

MM Docket No. 87-268

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

DOCKET FILE COPY ORIGINAL

**REPLY COMMENTS OF THE ELECTRONIC INDUSTRIES ASSOCIATION
AND THE ADVANCED TELEVISION COMMITTEE**

Peter F. McCloskey
President
Electronic Industries Association

F. Jack Pluckhahn
Chairman
Advanced Television Committee

2500 Wilson Boulevard
Arlington, Virginia 22201
(703) 907-7600

Of Counsel:

Joseph P. Markoski
James M. Fink
Squire, Sanders & Dempsey
1201 Pennsylvania Avenue, N.W.
Post Office Box 407
Washington, D.C. 20044
(202) 626-6600

January 22, 1996

No. of Copies rec'd
List ABCDE

0711

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY OF POSITION	ii
I. INTRODUCTION	1
II. THERE IS WIDESPREAD SUPPORT FOR A MINIMUM HDTV PROGRAMMING REQUIREMENT	4
III. NEITHER THE ALL-CHANNEL RECEIVER ACT NOR THE RECORD OF THIS PROCEEDING SUPPORTS THE PRESCRIPTION OF TECHNICAL REQUIREMENTS FOR ATV RECEIVERS	9
IV. THE RECORD SUPPORTS LIMITING INITIAL ELIGIBILITY FOR ATV CHANNELS TO EXISTING BROADCASTERS	17
V. THE COMMENTING PARTIES AGREE THAT IT WOULD BE PREMATURE FOR THE COMMISSION TO DECIDE NOW WHEN TO TERMINATE NTSC BROADCASTING	22
VI. THE RECORD DEMONSTRATES THE NEED FOR THE COMMISSION TO ADDRESS THE ROLE OF THE CABLE INDUSTRY IN THE SUCCESSFUL DEPLOYMENT OF ATV	24
VII. CONCLUSION	30

SUMMARY OF POSITION

The parties to this proceeding, including most broadcasters and television networks, overwhelmingly agree that HDTV must remain the centerpiece of ATV and, accordingly, that the Commission should require broadcasters to transmit a minimum amount of HDTV programming over their ATV channels. As confirmed by recent market research, picture quality will be the single most important factor in determining consumer willingness to purchase ATV receivers. As was true of color television, the supply of HDTV programming will drive the demand for HDTV receivers.

An HDTV programming requirement will not be meaningless, contrary to what some have claimed. Digital receivers are likely to achieve a penetration rate of at least 32 percent in seven years. And, if the Commission adopts a minimum HDTV programming requirement, the penetration rate will be substantially higher. The record also demonstrates that HDTV will not be a technology that is limited to the rich. By the year 2001, an HDTV receiver is expected to sell for a premium of only \$400 to \$550 over the price of a conventional NTSC set, or somewhere between \$800 and \$1,000. Indeed, when adjusted for inflation, ATV sets will be less expensive than color NTSC sets were in the 1960s. Moreover, by requiring a minimum amount of HDTV programming, the Commission will stimulate the demand for ATV receivers and thereby enable manufacturers and consumers to enjoy the savings made possible by economies of scale.

The record of this proceeding also demonstrates that the Commission can safely rely on marketplace forces, in the absence of government mandates, to provide consumers with a rich array of television receivers that are capable of receiving and displaying varying

combinations of NTSC, SDTV, and HDTV signals. Contrary to the claims of certain parties, there are no sound legal or policy reasons why the Commission should prescribe technical requirements for ATV receivers. As even the proponents of technical standards are forced to concede, the All-Channel Receiver Act does not give the Commission open-ended authority to prescribe standards for television receivers. Likewise, none of the parties advocating ATV receiver standards has identified any market failure that would warrant such regulation.

In addition to being unlawful and unwarranted, a requirement that ATV receivers display HDTV signals in the HDTV format would be unsound. Many Americans, particularly those of modest means, will want to enter the digital age by purchasing a less expensive SDTV receiver or a low-cost digital converter for their NTSC receivers (just as many consumers continued to purchase black and white televisions long after color sets became available). A requirement that all televisions be capable of receiving HDTV signals (but not necessarily displaying them in HDTV format) would be equally unjustified. There is every indication that all ATV receivers and all digital converters will be capable of receiving both SDTV and HDTV signals.

The Commission should similarly reject the suggestion of certain computer manufacturers that ATV receivers be required to display signals exclusively in the progressive scan format. The ATV standard approved by ACATS supports both the progressive and interlace scanning formats. Consumers should be free to select the format that best suits their needs and should not be required to purchase, and pay for, ATV receivers that display a format in which they have no interest.

The majority of parties filing substantive comments in this proceeding support limiting initial eligibility for ATV channels to incumbent broadcasters. As the Commission has recognized, broadcasters have the expertise and the resources to expedite the introduction of ATV. The same cannot necessarily be said of the public interest entities and LPTV stations that have also requested ATV channels.

The Commission should reject the suggestion that auctions be used as a means of allocating ATV spectrum. The auctioning of ATV channels would jeopardize the Nation's commitment to free, over-the-air broadcasting; auctions would also be unlikely to yield significant revenues because of NTSC interference and the fact that ATV spectrum is not contiguous. Recovered NTSC spectrum, by contrast, would yield much higher auction revenues because it can be repacked and offered in contiguous nationwide blocks. Although the Commission should not require broadcasters to bid for ATV channels, broadcasters should be required to pay spectrum-usage fees to the extent they use their ATV channels to provide services other than free, over-the-air broadcasting.

The commenters generally agree that it would be unproductive to set a date certain for the termination of NTSC broadcasting. The Commission should therefore remain flexible and defer a decision regarding NTSC broadcasting until it has a better understanding of how quickly the American public will make the transition to ATV. NTSC broadcasting should be terminated only when some reasonable, consumer-oriented benchmark has been satisfied, such as when less than a certain percentage of homes rely exclusively on over-the-air NTSC broadcasting.

Although the comments filed by cable companies reflect great hostility to the must-carry of ATV signals, the must-carry obligations of cable operators are mandated by statute. Furthermore, the public interest requires the carriage of NTSC and ATV signals by cable systems. Approximately two-thirds of American homes receive their television programming over cable systems. As a consequence, the success of ATV will require substantial involvement by the cable industry. To ensure this involvement, the Commission should confirm that the cable operators' must-carry obligations extend to a broadcast station's ATV and NTSC signals.

Many commenters also agree that the cable industry's support of the ATV standard approved by ACATS for over-the-air broadcasting will be critical to the success of ATV. The transition to ATV will be unduly complicated, delayed, and made more expensive if consumers and consumer electronics manufacturers are required to deal with multiple, disparate and incompatible ATV standards. The Commission should therefore require cable operators to support the ATV standard approved by ACATS.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

JAN 22 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Advanced Television Systems and)
Their Impact Upon the Existing)
Television Broadcast Service)

MM Docket No. 87-268

**REPLY COMMENTS OF THE ELECTRONIC INDUSTRIES ASSOCIATION
AND THE ADVANCED TELEVISION COMMITTEE**

The Electronic Industries Association ("EIA") and the EIA Advanced Television Committee ("ATV Committee") hereby reply to the comments that were filed in response to the Commission's Fourth Further Notice of Proposed Rule Making ("Notice") in the above-captioned proceeding on November 20, 1995.¹

I. INTRODUCTION

In their initial comments, EIA and the ATV Committee urged the Commission to conclude that:

- High Definition Television ("HDTV") should remain the centerpiece of Advanced Television ("ATV"). Because HDTV programming will provide consumers with the incentive to transition from today's familiar National Television System Committee ("NTSC") service to tomorrow's ATV, licensees should be required to broadcast a reasonable minimum amount of HDTV programming on their ATV channels.
- Technical standards should not be prescribed for television receivers. The marketplace can be safely relied upon to provide consumers with a rich variety of affordable television receivers capable of receiving multiple combinations of NTSC, Standard Definition Television ("SDTV") and

¹ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry, 10 FCC Rcd 10540 (1995) [hereinafter "*Notice*"].

HDTV, as well as digital converters capable of supporting all present and future NTSC receivers. The marketplace can also be relied upon to inform consumers of their equipment options.

- There is no need to decide now when to terminate NTSC broadcasting. The Commission, however, can productively address the kinds of factors that will be considered at a later point in the transition to ATV, including the number of households that remain exclusively dependent on terrestrial NTSC broadcasting, the availability of low-cost digital converters, and the amount of ATV programming available.
- Initial eligibility to obtain ATV channels without cost should be limited to existing broadcasters in exchange for their NTSC spectrum. If broadcasters use their ATV channels for other than free, over-the-air TV programming, these broadcasters should be assessed spectrum fees (to the extent the Commission has the authority to do so).
- Because cable television will be key to the success of ATV, the must-carry obligations of cable operators should extend to both ATV and NTSC broadcasting. The Commission should also require cable operators to support the ATV standard adopted for over-the-air broadcasting.
- Broadcasters should be prohibited from perturbing competition in the consumer electronics marketplace through collective action.
- Broadcasters should be subject to date-certain ATV application and construction deadlines, giving due regard to the special circumstances of non-commercial broadcasters and broadcasters operating in small markets.
- The Commission should expeditiously recover as much contiguous NTSC spectrum as possible. Towards this end, the Commission should make clear that NTSC spectrum is on "loan" to broadcasters pending the transition to ATV.

A review of the comments filed by other parties confirms the validity of these recommendations. The vast majority of commenters recognize the importance of HDTV and support a minimum HDTV programming requirement. Although some parties would have the Commission regulate the manufacture of ATV receivers, most recognize the importance of

relying on the marketplace and consumer choice to determine the types of ATV receivers that will be available in the marketplace.

A majority of commenters also agree with EIA and the ATV Committee that the Commission should remain flexible in determining when to phase out NTSC broadcasting and that any such decision should be based on reasonable consumer-oriented benchmarks, such as the number of households that remain solely dependent on NTSC broadcasting. Most of the parties filing substantive comments similarly support limiting initial eligibility for ATV channels to incumbent broadcasters because of their expertise and ability to expedite the introduction of ATV to the public. Substantial support also exists for: the prompt recovery and reuse of NTSC spectrum after NTSC broadcasting is terminated; the establishment of reasonable application and construction deadlines for broadcasters seeking ATV channels; and a prohibition against the bundling of ATV equipment and transmission service by broadcasters.

II. THERE IS WIDESPREAD SUPPORT FOR A MINIMUM HDTV PROGRAMMING REQUIREMENT

A large number of commenters, including most broadcasters and television networks,² agree with EIA and the ATV Committee that broadcasters should be required to transmit a reasonable amount of HDTV programming over their ATV channels.

As EIA and the ATV Committee explained in their initial comments, if ATV is to become the Nation's broadcast television standard for the next century, HDTV must be its centerpiece. With HDTV, every American home will be able to enjoy the high quality, panoramic experience of the theater, accompanied by CD-quality, six-channel surround sound.³ The availability of multiple SDTV channels and ancillary broadcast services will not -- standing alone -- spur the widespread acceptance of ATV; cable companies, wireless services, and common carriers are now or will soon be deploying these services. Thus, in the absence of an HDTV programming requirement, the deployment of ATV will be significantly delayed and may never reach millions of Americans who rely on free, over-the-air broadcasting. EIA and the

² See, e.g., Comments of Association for Maximum Service Television at 19 (five hours per week) [hereinafter "MSTV Comments"]; Comments of Capital Cities/ABC at 7 (at least five hours per week); Comments of Golden Orange Broadcasting at 2; Comments of Home Box Office at 14 [hereinafter "HBO Comments"]; Comments of Digital HDTV Grand Alliance at 5 (25 hours per week, 15 in prime time) [hereinafter "Grand Alliance Comments"]; Comments of General Instrument at 5-6 (same) [hereinafter "General Instrument Comments"]; Comments of Motorola at 11 (eight hours per day, all in prime time) [hereinafter "Motorola Comments"]; Comments of Thomson Consumer Electronics at 4 [hereinafter "Thomson Comments"]. All of the comments cited herein were filed in this proceeding on or about November 20, 1995, unless otherwise specifically noted.

³ When the Commission initiated this proceeding in 1987, it noted the physical limitations of NTSC service and the possibility of greatly enhancing the visual and audio quality of television through HDTV technology. See *Advanced Television Systems and Their Impact on the Existing Television Broadcast Service*, Notice of Inquiry, 2 FCC Rcd 5125, 5127 (1987).

ATV Committee therefore agree with the sentiments expressed by Edward Grebow, president of Tele-TV Systems, who advised the Commission during its December *en banc* hearing: "If you don't require it, it won't happen."

Proprietary market research underscores the importance of HDTV programming to ATV. A recently conducted study indicates that picture quality will be the single most important factor in determining consumer willingness to pay for ATV receivers. Among the 35 percent of prospective large-screen TV buyers who reflect the "early-adopter" segment of society, picture quality was four times as important as price in influencing their purchasing decisions. After seeing HDTV, these consumers indicated a willingness to spend, on average, an additional \$1,200 to upgrade their main television to HDTV. At the Commission's December *en banc* hearing, Bruce Allan of Thomson Consumer Electronics stated that "in all of the consumer electronics research of which Thomson is aware, this represents the highest premium consumers have ever expressed a willingness to pay."⁴

EIA and the ATV Committee are aware that, in a November 21, 1995 speech to the International Radio and Television Society, Chairman Hundt questioned the need for a minimum HDTV broadcasting requirement. The Chairman's doubts were apparently prompted by his understanding that only 20 percent of U.S. households would have HDTV-display sets

⁴ Testimony of Bruce M. Allan, Senior Vice President, Business Development, Thomson Consumer Electronics, Inc., *En Banc* Hearing, MM Docket No. 87-268, at 5 (Dec. 12, 1995) [hereinafter "Bruce Allan Testimony"]. See also Thomson Comments at 4 ("Recent market research conducted for Thomson by a major U.S. university reveals that the two most important variables influencing the rate of adoption of HDTV by consumers are picture quality and the amount of available HDTV programming.").

in ten years, primarily because HDTV-display sets would "run well north of \$2,000."⁵ The Chairman cited Jerry Pearlman, retired chairman of Zenith Electronics, as the source of these data.

In a November 27 letter to Chairman Hundt, Mr. Pearlman clarified the information referenced by the Chairman.⁶ Rather than projecting 20 percent penetration of HDTV-display sets in ten years, Mr. Pearlman estimated a penetration rate of at least 32 percent for digital receivers in seven years, 22 percent of which would have large-sized displays and 10 percent of which would have smaller-sized screens. Mr. Pearlman further projected that "millions more will be receiving . . . digital [over-the-air] broadcasts by cable using settop digital decoder boxes with analog TV sets."⁷ EIA and the ATV Committee submit that, if a minimum HDTV programming requirement is adopted, the figures cited by Mr. Pearlman will be on the low side. As demonstrated by the consumer electronics industry's experience with the introduction of color television, the supply of HDTV programming will drive the demand for HDTV-display receivers.⁸

⁵ Speech of Reed E. Hundt, "Digital TV: We Can Work It Out," International Radio and Television Society, New York, New York, at 4 (Nov. 21, 1995) [hereinafter "Hundt Speech"].

⁶ See Memorandum from J.K. Pearlman to Reed Hundt (Nov. 27, 1995) [hereinafter "Pearlman Letter"].

⁷ *Id.* Thus, even using these conservative estimates, the percentage of households receiving HDTV signals would be significantly higher than 32 percent.

⁸ As EIA and the ATV Committee explained in their initial comments, the amount of color programming was quite limited in the nine years following the introduction of color broadcasting. This limited availability of color programming resulted in very low sales of color television receivers. When broadcasters quadrupled the hours of color programming -- from less than 3,000 in 1964 to over 12,000 in 1968 -- the number of homes with color receivers soared -- from two million to 15 million households -- and

In this regard, the Media Access Project is simply wrong in its belief that HDTV is a technology that will be available only to the rich.⁹ Perhaps the Media Access Project was influenced by the misinformation attributed to Mr. Pearlman to the effect that HDTV receivers would cost "well north of \$2,000." As Mr. Pearlman made clear in his November 27 letter to Chairman Hundt, HDTV displays will be much lower than \$2,000. More specifically, by the year 2001, an HDTV display with a six-channel sound system and a 16:9 wide screen display can be expected to sell for a premium of only \$400 to \$550 over the price of a conventional 4:3 NTSC set.¹⁰ Mr. Pearlman noted that the average conventional 4:3 NTSC set is currently priced between \$400 and \$450. Thus, the average HDTV set would be priced somewhere between \$800 and \$1000, or less than half of Chairman Hundt's estimate.¹¹ When adjusted for inflation, ATV sets will be less expensive than color NTSC sets were in the 1960s.¹²

the price of color receivers plummeted. *See* Comments of Electronic Industries Association and Advanced Television Committee at 6 [hereinafter "EIA/ATV Committee Comments"].

⁹ *See* Comments of Media Access Project at 18.

¹⁰ *See* Pearlman Letter.

¹¹ Even Mr. Pearlman's cost estimates may prove to be overly conservative. On December 10, 1995, Gary Shapiro, president of the Consumer Electronics Manufacturers Association, told the Wall Street Journal that digital high-definition sets will probably be comparable in cost to today's large-screen televisions. *See* "White House Considers Consumer Plan in Digital TV to Get Support on Budget," Wall Street Journal, Dec. 11, 1995, at B6.

¹² *See* Comments of Zenith Electronics at 3 n.1 ("[R]elative to disposable income, giant-screen HDTV receivers are likely to be less expensive, even at the outset, than many popular console color TV receivers in the early 1960s, when adjusted for inflation.") [hereinafter "Zenith Comments"].

The Commission should also be aware that the cost of HDTV technology is expected to decline rapidly. As a consequence, future HDTV receivers will cost much less than those which first appear in the marketplace. As Bruce Allan of Thomson Consumer Electronics explained during the Commission's December *en banc* hearing:

By the tenth year, HDTV premiums could be as low as \$250 to \$350 -- and even less for small-screen receivers. While projections ten years out are necessarily speculative, history shows that cost and price reductions have consistently exceeded expectations for every major consumer electronics product ever introduced.¹³

Indeed, SDTV receivers can be produced today at prices that are competitive with NTSC receivers.¹⁴ Tomorrow's SDTV receivers will thus be as affordable as today's NTSC television sets. Moreover, owners of NTSC receivers will not even have to purchase an ATV set to participate in the digital age; reasonably-priced digital converters should be widely available to consumers.¹⁵

¹³ Bruce Allan Testimony at 5-6. *See also id.* at 6 ("While these HDTV premiums are substantial, especially in the early years, it is important to remember that at the time color television was introduced, color TVs cost about as much as a new automobile. [T]he quantum improvement that HDTV represents over NTSC is comparable to the difference between black and white and the first color TVs, *and today's digital TV technology is even more susceptible to cost reductions over time.*") (emphasis added).

¹⁴ *See* Pearlman Letter (stating that the cost premium of an HDTV receiver over an NTSC receiver is roughly the same as the premium of an HDTV receiver over a wide screen digital receiver).

¹⁵ At the Commission's December *en banc* hearing, it was estimated that these converters will be priced at around \$150. *See* "FCC Spends Day Soaking Up HDTV Views," Multichannel News, Dec. 18, 1995, at 35. Furthermore, the cost of digital converters is expected to drop rapidly, by approximately 20 percent per year. *See* "Europe to Delay HDTV," Television Digest, Sep. 25, 1995, at 6; "Hitachi Decoder Could Ease Move to HDTV," Consumer Electronics, Sep. 18, 1995, at 13.

Another important reason to encourage the introduction and use of this new technology is spectrum efficiency. HDTV will help relieve crowded spectrum and will dramatically improve the quality of over-the-air television service without any increase in the amount of bandwidth used.

EIA and the Committee therefore urge the Commission to accept the collective wisdom of industry and require ATV licensees to broadcast a reasonable minimum amount of free, over-the-air HDTV programming on their ATV channels. Moreover, at least some of this HDTV programming should be broadcast in prime time and should include "showcase" programming, such as special feature presentations and high visibility sporting events. Only by adopting such a requirement will the Commission ensure the speedy acceptance of ATV.

III. NEITHER THE ALL-CHANNEL RECEIVER ACT NOR THE RECORD OF THIS PROCEEDING SUPPORTS THE PRESCRIPTION OF TECHNICAL REQUIREMENTS FOR ATV RECEIVERS

In their initial comments, EIA, the ATV Committee and others explained why marketplace forces will provide consumers with a rich array of television receivers capable of receiving and displaying varying combinations of NTSC, SDTV and HDTV signals at prices consumers will be willing to pay. A number of parties, however, have asked the Commission to prescribe technical standards for ATV receivers.¹⁶ As even a cursory review of their

¹⁶ See, e.g., Comments of Cable Telecommunications Association at 2-3 [hereinafter "CATA Comments"]; Comments of Utilities Telecommunications Council at 4-5 [hereinafter "UTC Comments"]; Comments of Information Technology Industry Council at 3-4 [hereinafter "ITI Comments"]; Comments of Texas Instruments at 5 n.2 [hereinafter "TI Comments"]; Motorola Comments at 9-10; HBO Comments at 15.

comments demonstrates, these parties have failed to advance any sound legal or factual bases for such regulation.

Indeed, the proponents of technical standards are forced to concede that the All-Channel Receiver Act ("ACRA")¹⁷ does not authorize the Commission to require the manufacture of dual mode (ATV and NTSC) receivers¹⁸ or the display of ATV signals in a particular format.¹⁹ As these parties are apparently aware, the U.S. Court of Appeals for the District of Columbia Circuit expressly concluded soon after the ACRA was enacted that the Commission's authority is limited to ensuring "adequate or effective" reception of VHF and UHF channels; the statute does *not* authorize the Commission to establish minimum performance standards.²⁰ Finding that the Commission exceeded its authority in setting tuner noise performance standards for television sets, the court emphasized that the legislative history of the ACRA makes clear that Congress intended the Commission's authority to be quite limited:

The [Senate] committee, seeking to allay the fears of members who opposed the original broad grant of power to the Commission, emphasized the Commission's guarantees that receiver design regulation would be limited:

The FCC has assured us that the practical need for procuring authority which would permit effective

¹⁷ 47 U.S.C. § 303(s).

¹⁸ HBO concedes that "the All Channel Receiver Act adopted in 1962 did not contemplate and thus does not mandate manufacture of dual-mode (ATV and NTSC receivers)." HBO Comments at 15.

¹⁹ Texas Instruments concedes that ACRA does not authorize the Commission to regulate how video is displayed on ATV receivers. See TI Comments at 5.

²⁰ *Electronic Industries Association Consumer Electronics Group v. FCC*, 636 F.2d 689, 696 (D.C. Cir. 1980) (finding that Congress declined to adopt language that would have allowed the Commission to prescribe minimum performance standards).

enforcement of this legislation would not involve the Commission broadly in the dealings of television set manufacturers. On the contrary, the Commission's authority would be most limited and narrow. On the basis of these representations, your committee agrees that *the authority given to the Commission to require that all channel receivers "be capable of adequately receiving" UHF channels is narrow in scope*²¹

The ACRA was enacted for the sole and limited purpose of ensuring that television sets could receive UHF signals; Congress never contemplated the advent of digital signals (let alone the difference between SDTV and HDTV) and certainly did not authorize the Commission to regulate their reception. A requirement that all television sets receive all ATV channels would, therefore, contravene the intent of the statute. Furthermore, the statutory language of ACRA says absolutely nothing about *displaying* television channels. Therefore, a requirement that television receivers display HDTV signals in the HDTV format would contravene both the letter and the intent of the statute.

Apart from legal considerations, none of the parties advocating regulation of ATV receivers has identified any facts demonstrating a market failure that would warrant Commission regulation. As General Instrument has aptly pointed out:

The All-Channel Receiver Act was enacted to correct a specific problem -- TV receivers were being manufactured and sold without UHF tuners, and UHF stations were deprived of viewers. We see little or no likelihood that comparable problems will emerge in the new digital TV marketplace. The Commission should wait until

²¹ *Id.* at 695 (quoting S. Rep. No. 1526, 87th Cong., 2d Sess. 8 (1962), *reprinted in* 1962 U.S.C.C.A.N. 1880) (emphasis added).

specific problems emerge before choosing to regulate in this area.²²

In this regard, it is worth noting that the benefits of a UHF tuning capability were not obvious to consumers or manufacturers at the time the ACRA was enacted. By contrast, the advantages of HDTV are immediately obvious to all and will not require the Commission to promulgate rules to stimulate consumer demand for HDTV receivers.

The Commission should therefore reject the suggestion of the Utilities Telecommunications Council ("UTC") that it require all receivers sold on or after January 1997 to have a digital capability so as to "expedite" the phase-out of NTSC broadcasting²³ and "ensure [that] consumer equipment is not rendered useless or susceptible to interference" after the phase-out date.²⁴ The Commission should similarly reject suggestions that ATV receiver standards are necessary to "jump start" consumer demand for ATV, achieve full compatibility with HDTV, and ensure content creators a consistent level of display quality.²⁵

In a prior phase of this proceeding, the Commission wisely declined to prescribe technical standards for, or mandate the manufacture of, dual-mode (ATV and NTSC) television receivers.²⁶ Just as it did in 1992, the Commission should continue to rely on the marketplace

²² General Instrument Comments at 17-18.

²³ See UTC Comments at 4.

²⁴ *Id.* at 5. See also HBO Comments at 15.

²⁵ See, e.g., TI Comments at 5; Motorola Comments at 9; Comments of New World Television at 15-16 [hereinafter "New World Comments"]; MSTV Comments at 36-37.

²⁶ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Memorandum Opinion and Order, Third Report and Order, Third Further Notice of Proposed Rule Making, 7 FCC Rcd 6924, 6984 (1992) [hereinafter "*Third Report and Order*"].

and should neither require the manufacture of, nor compel the purchase of, ATV receivers that consumers do not want, do not need, or simply cannot afford. Nor should the Commission deny consumers the opportunity to purchase lower-priced NTSC equipment that meets their viewing needs. In the absence of any identifiable marketplace failure to satisfy consumer needs, there is no reason for the Commission to inject itself into the highly competitive consumer electronics industry. As it has in the past, the Commission should allow marketplace forces to determine the capabilities of ATV sets and the prices at which they will be sold.²⁷

In addition to being unlawful and unwarranted, a requirement that ATV receivers *display* HDTV signals in an HDTV format would be unsound.²⁸ Although a substantial percentage of U.S. households can be expected to purchase ATV receivers that display HDTV signals in the HDTV format, many Americans, particularly those of modest means, will want to enter the digital age either by purchasing a less expensive SDTV receiver or a low-cost digital converter for their NTSC receivers (just as many consumers continued to purchase black and white televisions well after color sets became available). Moreover, even affluent consumers may not be interested in investing in an HDTV capability for small-screen or occasionally used television receivers.²⁹ An HDTV-display requirement would therefore substantially and

²⁷ See Thomson Comments at 6-7 ("The Commission can be confident that manufacturers will provide a variety of products and the appropriate financing arrangements to help consumers obtain the digital receivers and converters needed to complete the transition.").

²⁸ See, e.g., CATA Comments at 2-3; Motorola Comments at 9; MSTV Comments at 37; New World Comments at 15-16.

²⁹ Television receivers located in different parts of the home (e.g., kitchens, living rooms, bedrooms) are used for different purposes and therefore often have different capabilities.

needlessly raise the cost of ATV receivers for those consumers that are not interested in -- or cannot afford -- HDTV-quality pictures.³⁰

A requirement that all televisions be capable of receiving HDTV signals (but not necessarily displaying them in HDTV format) would be equally unjustified.³¹ The widespread availability of affordable digital converters will ensure that purchasers of NTSC equipment can receive both SDTV and HDTV signals. The same is true of ATV receivers. It would simply make no sense for manufacturers to produce digital converters or digital ATV receivers that did not work -- *i.e.*, went blank -- whenever an HDTV signal is broadcast. Because the marketplace will ensure that all digital receivers and digital converters are capable of receiving both SDTV and HDTV signals, there is no need for government intervention or regulation of television receivers.³²

The Commission should similarly reject any suggestion that it prohibit or restrict the sale of NTSC receivers.³³ As EIA and the ATV Committee explained in their initial comments, there is an enormous embedded base of video cassette recorders, laser disc players,

³⁰ Hitachi states that the price of an SDTV display of HDTV signals will be much less expensive than the price of a receiver that displays HDTV signals as HDTV: "The cost of an HDTV display will greatly exceed the cost of HDTV signal processing circuitry for the foreseeable future." Comments of Hitachi America at 6.

³¹ See, *e.g.*, TI Comments at 5; HBO Comments at 15.

³² The Commission, moreover, should recognize that any requirement that televisions receive or display HDTV signals would be meaningless -- and a very expensive exercise in futility -- if the Commission does not also mandate a minimum HDTV programming requirement. It simply makes no sense to require manufacturers to produce, and consumers to purchase, HDTV-capable receivers if there is no assurance that any HDTV programming will be broadcast.

³³ See, *e.g.*, HBO Comments at 16 n.26; New World Comments at 16.

and other video equipment that use NTSC receivers for non-broadcast purposes. No sound public policy would be served by stranding the American public's investment in this equipment. Moreover, to deny consumers continued access to this technology would unfairly harm those who can least afford to convert, at an early stage, to digital television. As the comments make clear, these consumers will be able to use digital converters with their NTSC receivers to access digital service on an economical basis.³⁴

Finally, the Commission should reject the request of Apple, Microsoft, and ITI that all ATV receivers be required to display signals only in the progressive scanning format.³⁵ As the Commission is aware, the ATV standard adopted by the Advisory Committee on Advanced Television Service ("ACATS") supports the progressive scanning format in five of six HDTV formats and in nine of twelve SDTV formats. Indeed, Commissioner Ness has characterized the Grand Alliance standard as "computer friendly."³⁶ The ATV standard's ability to support the progressive scanning format, however, is apparently not adequate for Apple, Microsoft and ITI; they want progressive scanning to be the *exclusive* format, regardless

³⁴ See Grand Alliance Comments at 17 ("Any requirement to limit or ban the sale of NTSC receivers would be particularly ill-advised. . . . The marketplace will demand low-cost digital converters that can be used with existing and new NTSC sets to provide many consumers with an initial economical means of accessing digital services.").

³⁵ See Comments of Microsoft Corporation at 4-5 (filed Dec. 12, 1995) [hereinafter "Microsoft Comments"]; Comments of Apple Computer at 6-7 [hereinafter "Apple Comments"]; ITI Comments at 3-4.

³⁶ Remarks of Commissioner Susan Ness -- FCC Digital Television *En Banc* Hearing, MM Docket No. 87-268 (Dec. 12, 1995).

of the impact on consumers and other concerned industries.³⁷ Their demand is totally unreasonable and should be rejected by the Commission.

As Apple, Microsoft and ITI are well aware, representatives of the computer industry have actively participated in the ACATS process. Through their efforts and those of others, ACATS developed a list of ATV interoperability requirements, "not only for the delivery of terrestrial broadcast television programming, but also for other delivery approaches and applications relating to computing, telecommunications, motion pictures and imaging."³⁸ These include, among other factors, an all-digital implementation based on a layered architectural model, the use of universal headers and descriptors, transmission of the signal in progressive scan format, and the use of a flexible packet data transport structure. The ATV standard approved by ACATS includes all of these elements.

As Apple, Microsoft and ITI are also well aware, only *one* of the six HDTV formats contained in the ACATS standard contemplates the use of interlace scanning. This was included in the ATV standard for a very practical reason, *i.e.*, to enable broadcasters to make a timely transition to ATV. For the immediate future, only interlace cameras and studio equipment will be available to television broadcasters. With this equipment, broadcasters will

³⁷ See Microsoft Comments at 4 ("Unfortunately, the proposed standard includes several interlace scan formats in addition to higher-quality progressive scan formats."); ITI Comments at 3 ("ITI believes that a truly interoperable ATV system will require the exclusive use of progressive scan."); Apple Comments at 7 ("[I]t is of central importance that new formats employ only non-interlace standards in the transmission channel and at the display.").

³⁸ Letter from Richard E. Wiley, Chairman, ACATS, to Rick Shriner, Vice President, Apple Interactive Media at 2 (July 10, 1995) (quoting ATV System Recommendation).

be able to begin broadcasting HDTV programming while progressive scanning equipment is being developed.

Apple, Microsoft and ITI also overlook the fact that the ATV standard approved by ACATS decouples the transmission format from the display format. This will benefit consumers by providing them with a choice of ATV receivers. If the consumer electronics industry's past experience with new technologies is any indication, consumers will demand, and manufacturers will produce, a variety of display equipment, including large-screen progressive displays. Consumers interested in one scanning format should not be required to purchase, and pay for, ATV receivers that display a format in which they have no interest.³⁹ Rather, consumers should be allowed to decide the mix of features and functions of ATV receivers that best meets their needs.

IV. THE RECORD SUPPORTS LIMITING INITIAL ELIGIBILITY FOR ATV CHANNELS TO EXISTING BROADCASTERS

The majority of the substantive comments filed in this proceeding support limiting initial eligibility for ATV channels to incumbent broadcasters.⁴⁰ As the Commission has recognized, their expertise and resources will expedite the introduction of ATV.⁴¹ The same

³⁹ EIA and the ATV Committee find it ironic that Microsoft, Apple and ITI -- which ordinarily are violently opposed to government-prescribed standards for themselves -- are so eager for the FCC to prescribe ATV receiver standards for others.

⁴⁰ See, e.g., MSTV Comments at 7-9; New World Comments at 4-7; Grand Alliance Comments at 7; General Instrument Comments at 4; Thomson Comments at 5; HBO Comments at 6.

⁴¹ See Notice at ¶¶ 25-27.

cannot necessarily be said of the "public interest" entities⁴² and low-power television ("LPTV") stations that have also requested ATV channels.⁴³ As the Commission found in 1992:

full-service stations, by definition, can reach larger audiences than the low power television service stations. It thus furthers our goals in this proceeding to permit full-service stations to take priority over the secondary services in the implementation of ATV
...⁴⁴

Moreover, ATV spectrum is in short supply. As the Commission has previously concluded, it cannot allocate this spectrum to others and still ensure that incumbent broadcasters have enough bandwidth to implement ATV on a seamless, nationwide basis:

[I]t will be a challenge to provide existing full-service broadcasters sufficient ATV spectrum to satisfy their needs and the public's interest in the broadest and most efficient dissemination of this new transmission mode. We decline to further constrain the ATV allotment/assignment process by affording low power television stations priorities not generally afforded to services with secondary status.⁴⁵

⁴² See, e.g., Comments of Fairness and Accuracy in Reporting (passim); Comments of Small Business Survival Committee (passim).

⁴³ See, e.g., Comments of Community Broadcasters Association (passim).

⁴⁴ *Third Report and Order*, 7 FCC Rcd at 6953.

⁴⁵ *Id.* at 6953-54. Underscoring the scarcity of ATV spectrum is the Commission's decision to stop accepting new LPTV service applications within 100 miles of the top 36 U.S. cities. See *Notice of Limited Low Power Television/Television Translator Filing Window*, FCC Public Notice No. 41954, at 1 n.1 (Mar. 3, 1994).

The Commission's decision is also of limited duration. Once incumbent broadcasters have been assigned ATV channels, LPTV stations and others may apply for ATV channels and "open competition will determine who the most qualified parties are."⁴⁶

The Commission should also reject the suggestion of some commenters that auctions be used as a means of allocating ATV spectrum. Simply stated, auctioning ATV channels would jeopardize the Nation's commitment to free, over-the-air broadcasting. Auction winners would demand the right to use the spectrum as they see fit, and would inevitably -- and understandably -- decide to maximize their revenues by offering primarily pay-per-view and subscription video services, as well as other fee-based offerings.⁴⁷ As virtually every party to this proceeding has recognized, a key public policy goal during the transition to ATV should be to protect and promote the continued availability of free, over-the-air broadcasting. These sentiments were echoed by many Commissioners during the December *en banc* hearing. Commissioner Ness, for example, eloquently noted that:

free, over-the-air broadcasting provides an invaluable service to the American public. It serves us all, any time any place, rich or poor, urban or rural. It educates, informs and entertains. When widely held, its diversity of voices serves as an insurance policy for democracy. . . . We must be cognizant of the millions of consumers who depend upon broadcasting for their news and entertainment. Whatever we do, we must ensure continued service

⁴⁶ *Third Report and Order*, 7 FCC Rcd at 6954-55. The Commission's rules specifically permit LPTV channels to be used for "subscription television." 47 C.F.R. § 73.642(a)(2) (1994). Therefore, including LPTV stations in the initial eligibility pool could possibly jeopardize free, over-the-air television.

⁴⁷ ACATS Committee Chairman Richard Wiley made this point at the Commission's December *en banc* hearing. Furthermore, Commissioner James Quello correctly pointed out that a predominance of pay TV services would create a nation of "haves and have-nots."